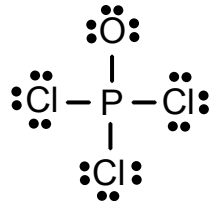


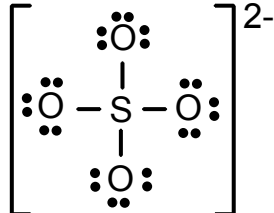
Assignment 8.4

#68, 70, 74, 75-79 odd, 86

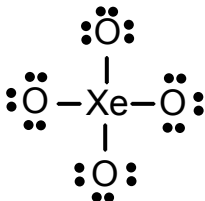
68) a. $5 + 6 + 3(7) = 32$ valence e-



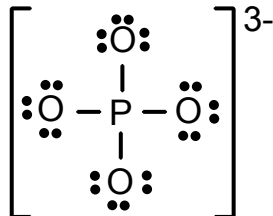
$6 + 4(6) + 2 = 32$ valence e-



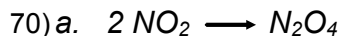
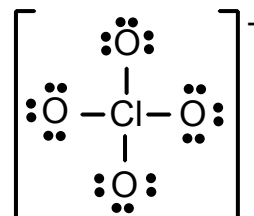
$8 + 4(6) = 32$ v.e-



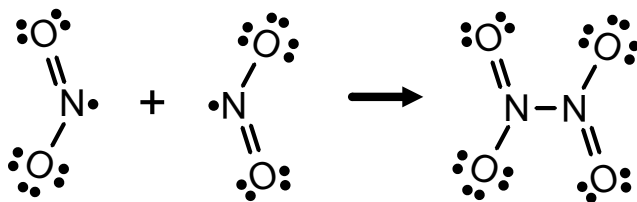
$5 + 4(6) + 3 = 32$ v.e-



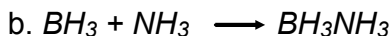
$7 + 4(6) + 1 = 32$ v.e-



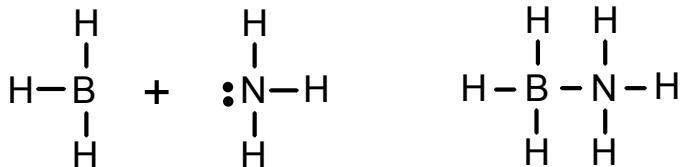
$5 + 2(6) = 17$ v.e- each



34 v.e-



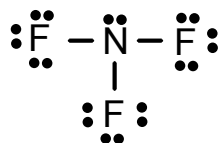
$3 + 3(1) = 6$ v.e- and $5 + 3(1) = 8$ v.e-



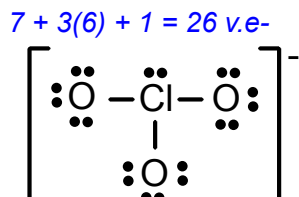
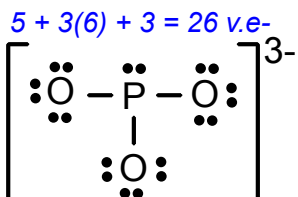
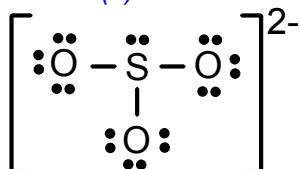
14 v.e-

In both cases, the reaction occurs because it helps satisfy the octet rule. This is more stable than having a partially filled valence shell.

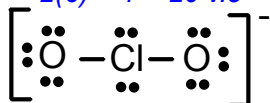
74) b. $5 + 3(7) = 26$ valence e-



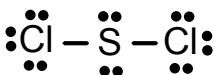
$6 + 3(6) + 2 = 26$ valence e-



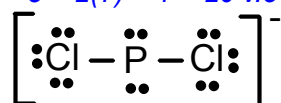
c. $7 + 2(6) + 1 = 20$ v.e-



$6 + 2(7) = 20$ v.e-

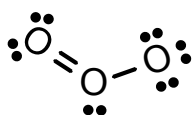


$5 + 2(7) + 1 = 20$ v.e-

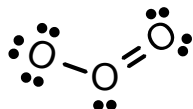


d. Molecules and polyatomic ions with the same number of valence electrons will have similar Lewis Structure.

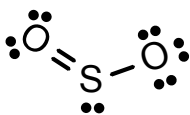
74. O_3 : $3(6) = 18$ v.e-



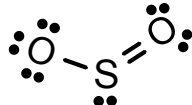
resonant structure:



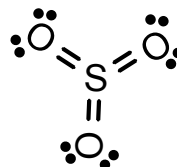
SO_2 : $3(6) = 18$ v.e-



resonant structure:



SO_3 : $4(6) = 24$ v.e-



75. $6(4) + 6(1) = 30$ v.e-

